

§ § §

**REMARKS**

In order to promote administrative efficiency and better communication, the Examiner is invited to make suggestions at any time during the proceedings, via phone, fax or e-mail, whenever such suggestions are within the Examiner's discretion as an aid to placing the claims in order for allowance in a timely manner.

Double Patenting:

The Examiner awaits a formal decision on the terminal disclaimer filed on September 15<sup>th</sup>, 2006. Therefore, until such decision is made, Applicant need not respond to the Examiner's provisional rejection on double patenting grounds. Further, the Examiner cannot make the rejection final under such circumstances. Applicant therefore thanks the Examiner for the further action which has given Applicant the opportunity to clarify, but requests that the Examiner lift the finality of the rejection, which is improper under the circumstances.

§102(b) Rejection based on Salyer (US Patent 6,001,105):

The Examiner once again rejects claims 1-12 under §102(b) as being anticipated by Salyer (US Patent No. 6,001,105). It appears that the Examiner is confusing a definition of doubly curved, appearing in a third party application, and that which is clearly defined in the instant application. When Applicant refers to "doubly curved" he is referring to the curves apparent when viewing a tooth head-on as defined in the specification on page 5, paragraph 26:

The matched arc cutting edge 20' is adjacent secondary cutting edges 20' supported by *adjacent rise portions* 29', which may also be characterized as gusset or buttress portions, which curve back toward the cutting shell 12' and support the secondary cutting edges 20'. The overall cutting edges 20'-20"-20' are therefore doubly-curved in that at least two distinct curves (one associated

with cutting edges 20' and the other associated with cutting edge 20'') are required to define each cutting edge 20'-20''-20'''

According to Applicant's definition of "doubly-curved", the controlling definition for the purpose of review of the instant application, Salyer's tooth, when viewed head-on, is singly curved, made up of essentially one curve, such curve not matching the arc of the profile to be cut, while Applicant's tooth is made up of two curve types, the one type which follows the profile to be cut and the second type (there are two such segments or gussets per tooth) which connect the profile cutting edge to the reamer body. There is therefore no connection between Salyer's definition of doubly curved and Applicant's definition of doubly curved. Given that the compound phrase "doubly curved" has no common meaning, the use of the same term in Salyer for a different meaning does not trump Applicant's definition, and should merely be considered a coincidence of no consequence to Applicant's own definition. Nevertheless, to accommodate Examiner, Applicant has removed the "doubly-curved" language from the claim and amended claim 1 to require that:

...the teeth have a matched arc cutting edge of substantial length connected to the shell by *adjacent rise portions*, the matched arc cutting edge having a cutting profile which substantially matches a profile of the overall shape to be cut

The addition of the term is supported in the specification on page 5 thereof (extract above), and the limitation of "overall" is intended to make clear that the profile to be cut is the overall cut profile, not the contour of the cutting tooth (i.e., not the cut profile of the tooth alone but rather the profile cut by the sum-total of all the teeth. Consequently, the limitation in claim 1 requiring that substantially all the teeth are doubly curved, *having a matched arc cutting edge* clearly distinguishes the invention over Salyer. Such a limitation is clearly defined in the instant specification, as follows:

Item	Quotation/Excerpt	Location
1	The overall cutting edges 20'-20''-20' are therefore doubly-curved in that at least two distinct curves (one associated with cutting edges 20' and the other associated with cutting edge 20'') are required to define each cutting edge 20'-20''-20'.	Page 5, para 26
2	Substantially all the teeth each have a matched arc cutting edge of substantial length that has a cutting profile which substantially matches a profile of a shape to be cut.	Page 3, para 10
3	Substantially all the teeth 16' each have a matched arc cutting edge 20'' of substantial length that has a cutting profile which <i>substantially matches a profile of a shape to be cut</i> . ... Because the matched arc cutting edge 20'' is not a peak or point cutter, but rather a profile cutter, such a configuration reduces the number of teeth required to cut the shape.	Page 5, para 26
4	Contrary to conventional wisdom, the new tooth 16' is not generated by making a larger or wider opening 18 adjacent to the tooth. The opening 18' is, as in the prior art, substantially round in shape. <i>The tooth 16' is generated by the manner in which the tooth is deformed to match the profile of the eventual shape.</i>	Page 6, para 28
5	The present invention generates a tooth 16' with a wider cutting path that is therefore easier to overlap with the cut generated by the next tooth	Pages 6-7, para 31

	<p>at a different latitudinal elevation on the hemisphere. Additionally the tooth 16' cuts a sector of the required hemisphere, matching the required radius exactly.</p> <p>Consequently, as already mentioned, the improved tooth allows a full hemisphere to be cut with fewer teeth.</p>	
6	<p>Compare FIG. 2C and FIG. 3C, in which the tooth of the prior art has an apex, and that of the instant invention has what resembles a flat which matches the profile of the surface to be cut.</p>	FIG. 2C and FIG. 3C

Applicant has further clarified this patentably distinct feature and the meaning of “profile” in the context of the form to be cut by amending FIGs. 3C and 4, by adding a common reference numeral 58 to the profile to be cut, represented by the dashed line present in both drawings, as well as an arc segment 59 in FIG. 3C, which shows the particular segment of the cutting edge that matches the profile 58 to be cut. It should now be clear to the Examiner that there is a “matched arc cutting edge of substantial length that has a cutting profile which substantially matches a profile of an overall shape to be cut” as claimed. Concerning the Examiner’s comment regarding the existence of unused space, Applicant emphasizes once again that neither Applicant nor Salyer expended the unnecessary energy otherwise required to depict every single tooth among a multitude of teeth formed in the hemispherical cutting body. Again, a cutting tooth that cuts at a peak cuts a smaller cutting path than a tooth that has a wide cutting surface, cutting along a curve matching the profile to be cut (i.e., a large number of adjacent cutting points).

Still further, it is believed that Salyer clearly *does not* show a doubly curved edge *wherein one of the curves cuts a wide band of the profile to be cut*, as shown in



the drawings of the instant application. Rather, using Applicant's definition, Salyer shows a singly curved edge extending from the hemispherical reamer body (the shell) to a cutting peak and then back to the reamer body. In the present invention, one curve is the cutting edge which follows the curve of the overall form to be cut, and the other curve is that of each adjacent gusset which extends from the cutting edge back to the hemispherical body.

It should now be clear that the Salyer prior art lacks an essential element of the invention as claimed, namely, that of "the teeth having a matched arc cutting edge of substantial length connected to the shell by adjacent rise portions, the matched arc cutting edge having a cutting profile which substantially matches a profile of the overall shape to be cut". Consequently, it is believed that the claims are in condition for allowance, as no new issues are raised that were not apparent from the application as filed. Acknowledgement of this fact is respectfully requested via a notice of allowance of the pending claims.

§ § §

#### Conclusion

Applicant has made a diligent effort to advance the prosecution of this application by pointing out herein with particularity how the claims now presented are patentably distinct from the prior art of record. Therefore, Applicant respectfully submits that the claims are now in condition for allowance. No new matter has been entered by this amendment. Any limitations to the claims are made solely for the purpose of expediting the prosecution of the application and, unless otherwise expressly stated, are not made to narrow, vis-à-vis the prior art, the scope of protection which any subsequently issuing patent might afford. Again, if the Examiner has further questions, he is invited to contact the undersigned at phone 011-4171-230-1000, fax at 011-4171-230-1001 (Switzerland is 6 hours ahead of Eastern Std Time), or e-mail at [moetteli@patentinfo.net](mailto:moetteli@patentinfo.net).

The Undersigned authorizes the Commissioner to charge any fee or credit any overpayment of any fee under 37 CFR §1.16 and §1.17 which may be required in this application to the deposit account of MOETTELI & ASSOCIES SARL, no. 50-2621.

Respectfully submitted,

Date : March 5, 2007



John MOETTELI  
U.S. Reg. No. 35,289

Enclosure: none